C20-CM–**105**

7025

BOARD DIPLOMA EXAMINATION, (C-20)

MAY—2023

DCME - FIRST YEAR EXAMINATION

BASICS OF COMPUTER ENGINEERING

Time : 3 Hours] [*Total Marks* : 80

PART—A 3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define the terms hardware and software.

2. State the roles and responsibilities of processor.

3. Define flowchart. List the features of flowchart.

4. State the need of an algorithm.

5. List the various operating systems used presently.

6. Write the steps involved in changing the date and time in system.

7. Define booting.

8. List any six web browsers.

* **9.** Define inductive learning.

* **10.** Write applications of machine learning.

*   **PART—B**   8×5=40

Instructions :   (1) Answer **all** questions.

               (2) Each question carries **eight** marks.

               (3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11.   *(a)*   Explain the generations of a computer.   8

(OR)

    (b)   *(i)*   Convert $(462)_8$ into hexadecimal number system.   2

         (ii)   Convert $(C204)_{16}$ into binary number.   2

        (iii)   Convert $(11010001)_2$ into octal number.   2

        (iv)   Convert $(2581)_{10}$ into binary number.   2

12.   *(a)*   Draw and explain the flowchart to find largest of three numbers.   8

(OR)

    (b)   Explain the steps involved in algorithm development with an example.   8

13.   *(a)*   Explain disk defragmentation using system tools.   8

(OR)

    (b)   Explain the following commands with an example :

         (i)   DATE   2

         (ii)   REN   2

        (iii)   DEL   2

        (iv)   COPY   2

14.   *(a)*   Explain functions of BIOS.   8

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(OR)

*   *(b)*   Explain the role of search engines with examples.   8

15. *(a)* Explain the characteristics of big data. 8

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(OR)

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(b) List and explain the phases in ethical hacking. 8

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PART—C
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10×1=10

Instructions : (1) Answer the following question.

(2) The question carries **ten** marks.

(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. Explain address formats. How many bits are allocated for Network ID and Host ID in 25.171.150.235 address?

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